

# Mashing up data to demystify user behavior: a collaborative exploration

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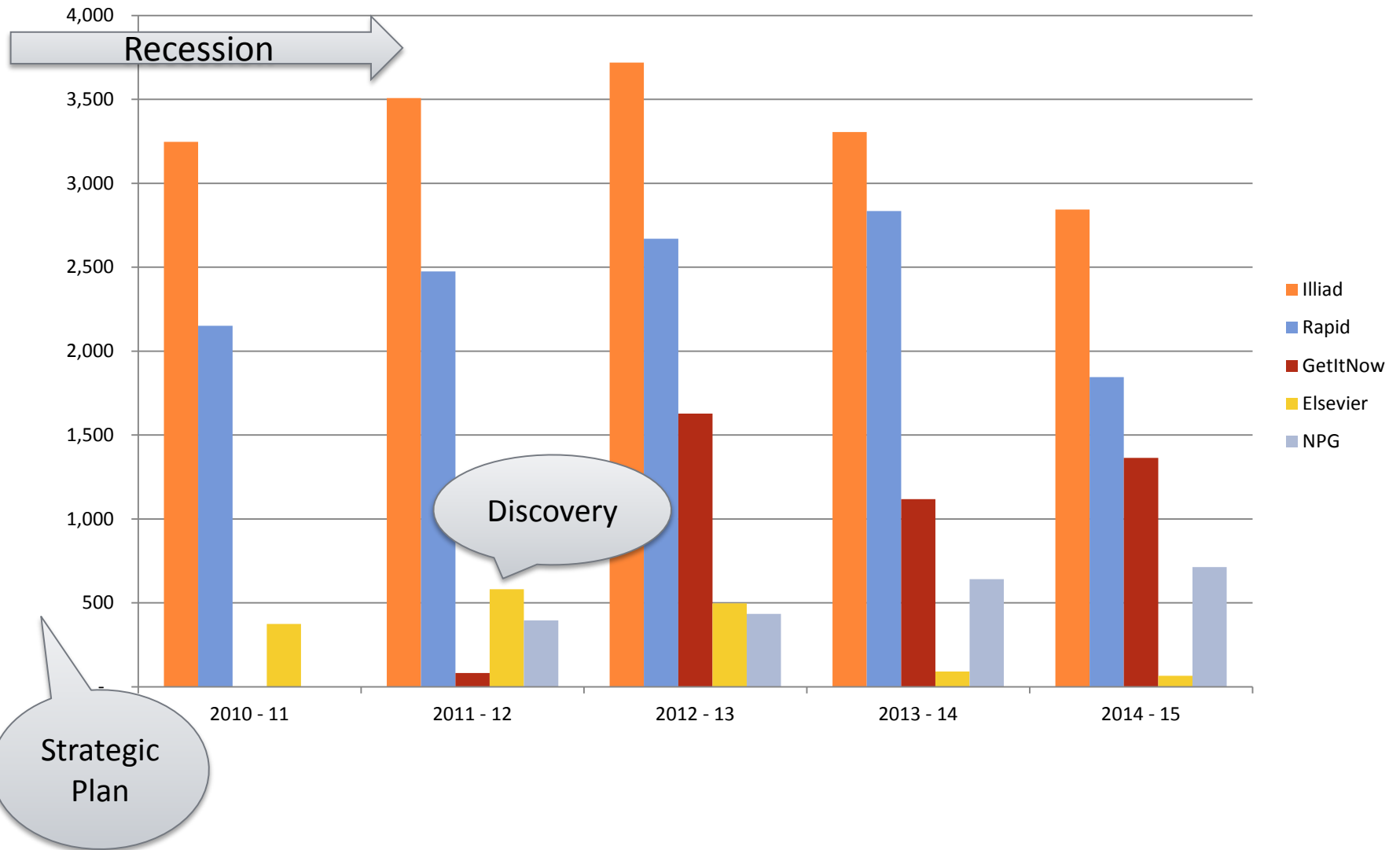




## Gettysburg College, Musselman Library

- Highly selective liberal arts college located in south central Pennsylvania
- 2,650 full time student enrollment
- Musselman Library
  - 14 librarians
  - 22 staff (archivist, intern(s), and support staff)
- Some stats
  - Periodical subscriptions
    - 333 print
    - 60,802 electronic
  - 300 online databases

# A Progression of Article Delivery Services



# Article Delivery Services

## Mediated

ILLiad

## Unmediated

Rapid

Elsevier

Nature Publishing Group (NPG)

GetItNow



# Article Delivery Services

## Subscription

ILLiad

Rapid

## Block Article Purchase

Elsevier

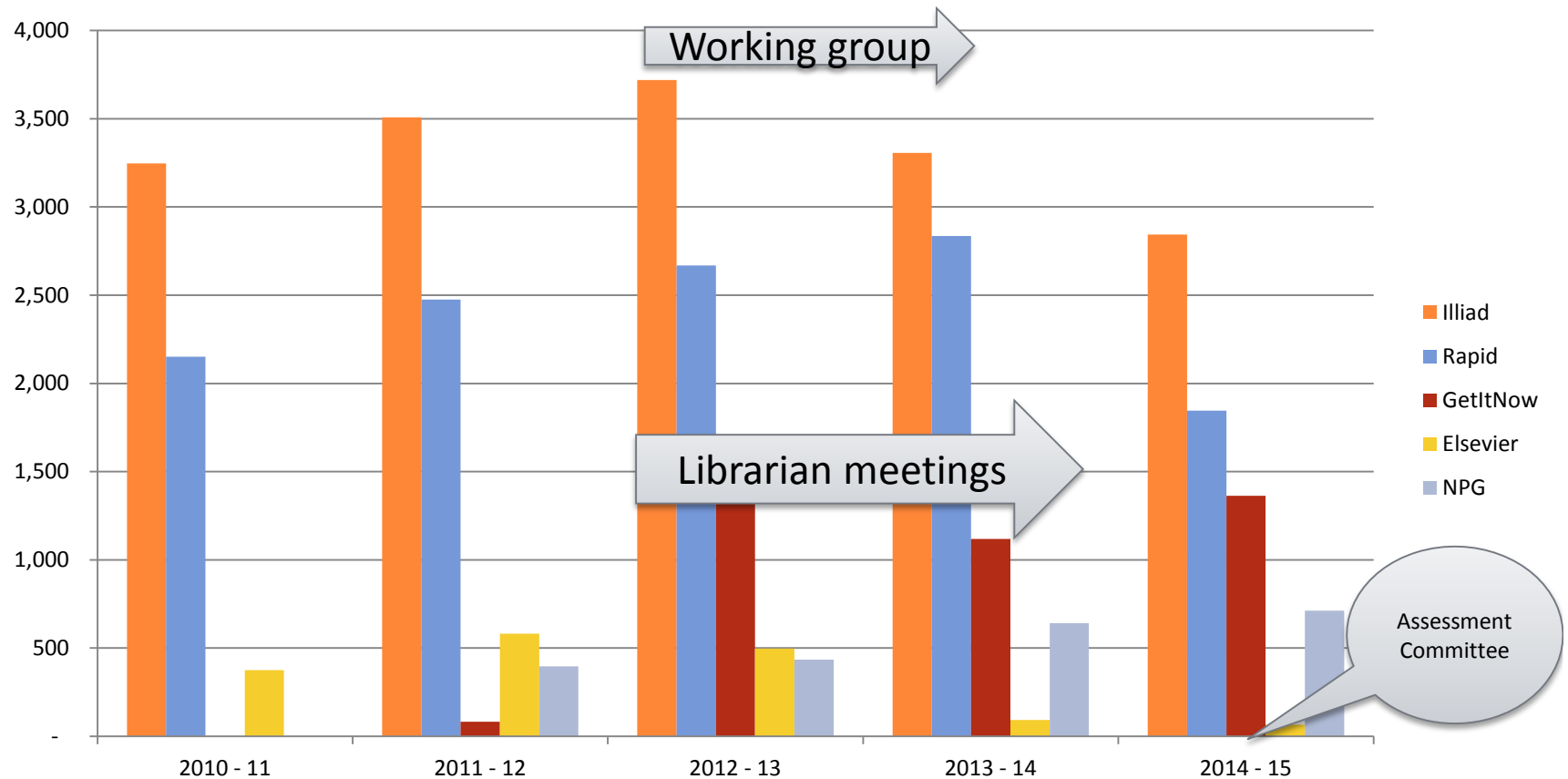
## Tokens

Nature  
Publishing  
Group  
(NPG)

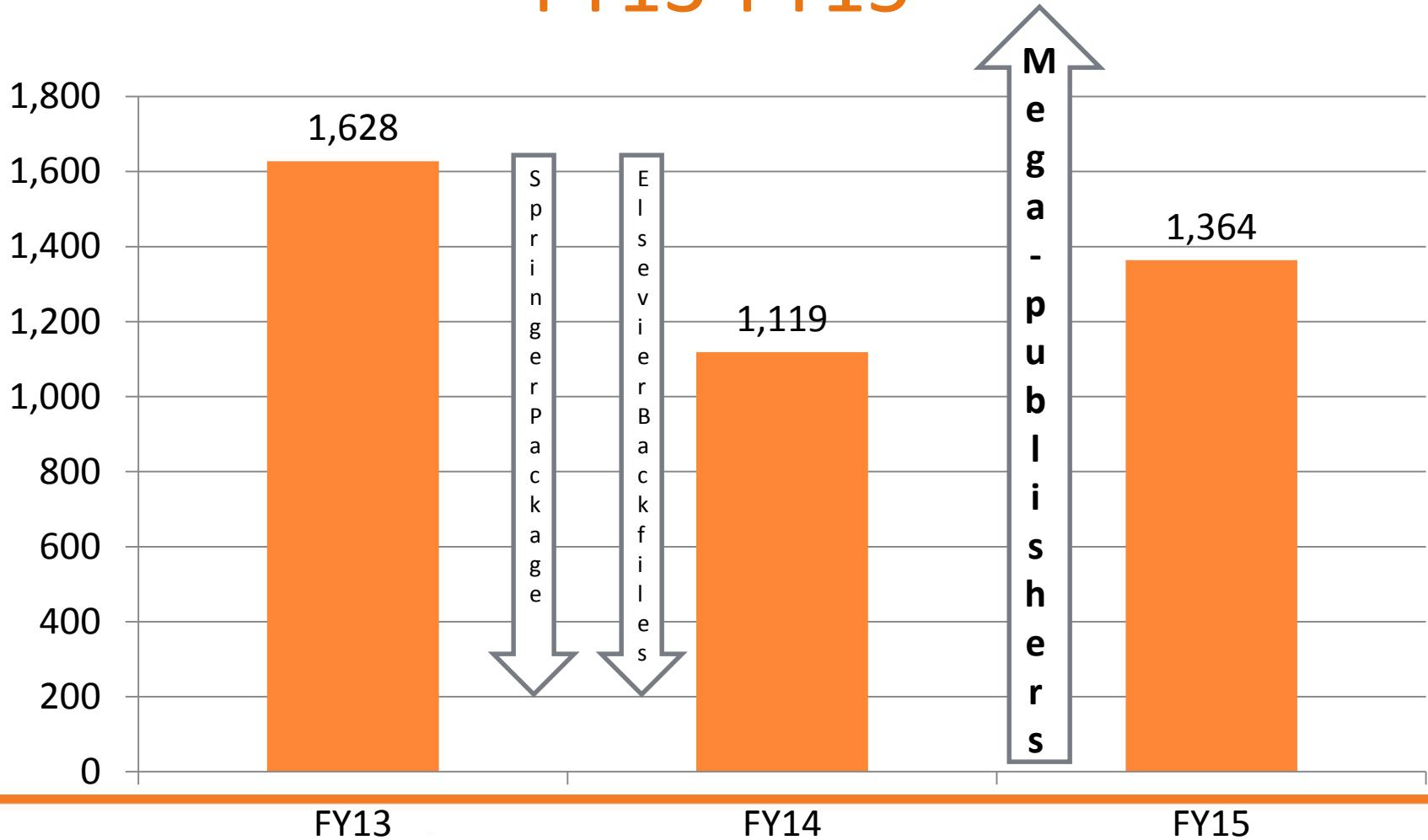
## Per Article

GetItNow

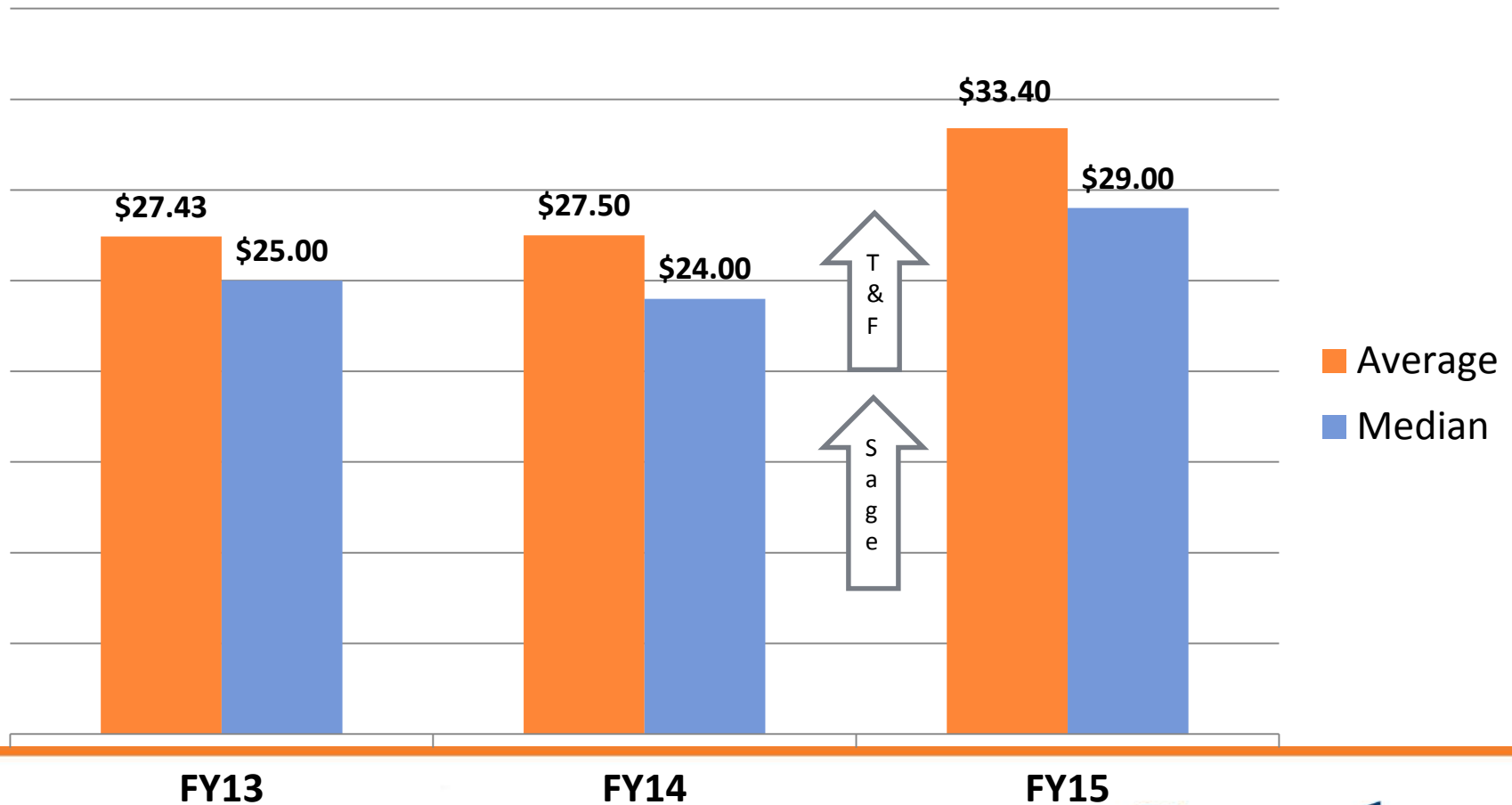
# Evaluation of Article Delivery Services



# Get It Now Fulfillment FY13-FY15

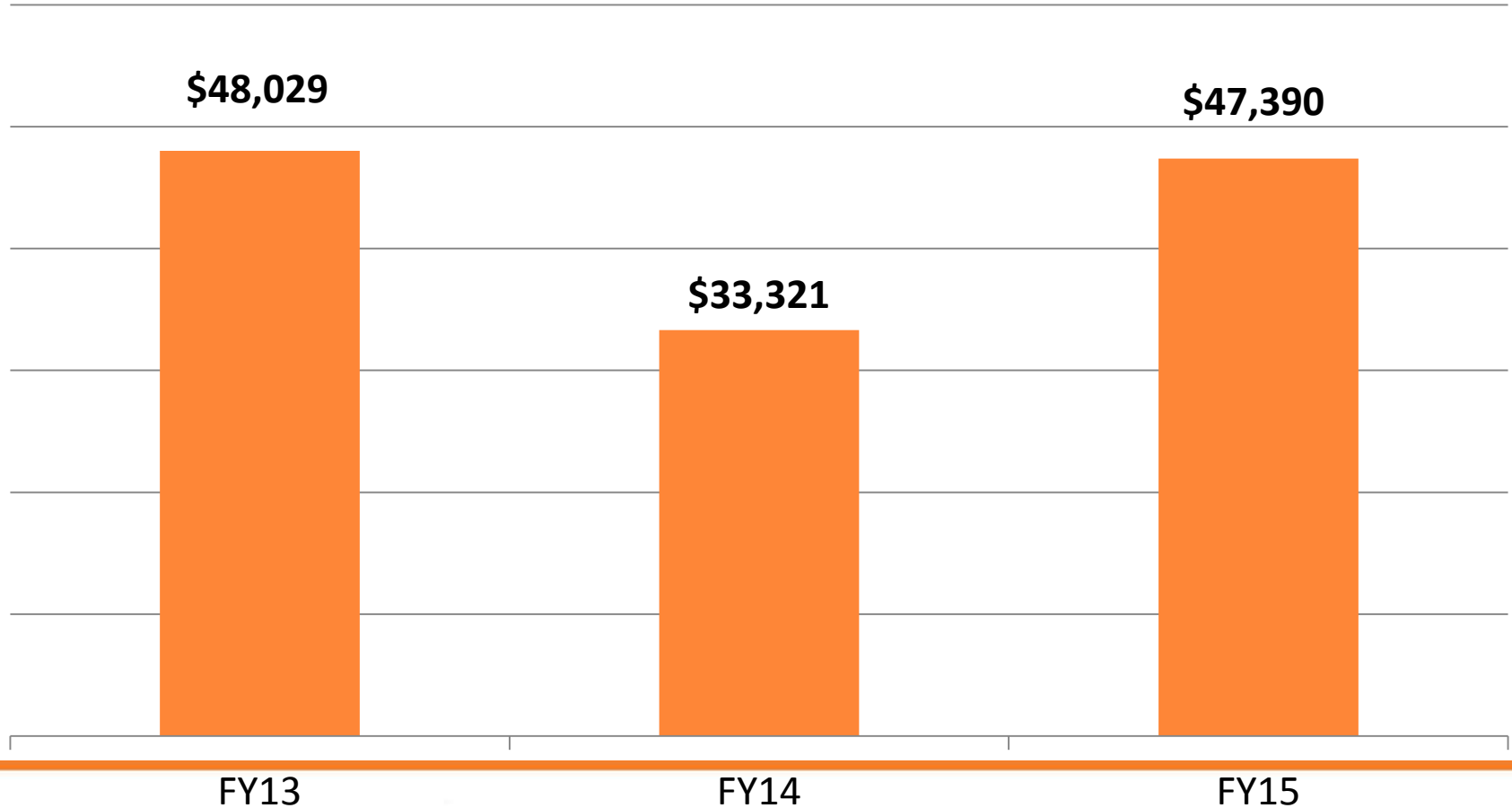


# Get It Now measures/article FY13-FY15





# Get It Now Expenditures FY13-FY15



# Acquisitions Questions

What is the value-add of commercial article delivery?

Are there cost effective alternatives?

Can 'value' be quantified by the available data?

# Themes

**Commercial Article Delivery**

**Outcomes**

**Data**

# User Services Questions

What are the relative strengths of commercial and traditional document delivery methods?

Are the services respectively meeting the information needs/expectations of our users?

Can 'service' be quantified by available data?

# Questions, Distilled and Prioritized

- What are the relative strengths of commercial and traditional document delivery services?
- Are the services respectively meeting the information needs/expectations of our users?

# Mashing Data

- Relative Strengths
  - Mash data from article delivery service reports

	A	B	C	D	E	F	G
1	Type	Order Date	Fulfillment Date	Publication	Publication Year	Article Title	
2	Rapid	4/14/2015	4/15/2015	4529F: Revista de Teoría de la Literatura y Literatura Com	2012	argentina	
3	1			4529F: Revista de Teoría de la Literatura y Literatura Comparada Count			
4	ILiAd		4/11/2015	A companion to the Meuse-Argonne campaign		Communications in World War I The Meuse-Argonne	
5	1			A companion to the Meuse-Argonne campaign Count		1992 Campaign of 1918	
6	ILiAd		4/26/2015	A history of psychology in autobiography Vol VII	1951	Eleanor J Gibson	
7	1			A history of psychology in autobiography Vol VII Count			
8	ILiAd		4/13/2015	Academic emergency medicine : official journal of the Sc		Exertional heat stroke in a young woman: gender	
9	1			Academic emergency medicine : official journal of the Society for Academic Emergency Medicine Count		2007 differences in response to thermal stress	
						Effect of vitamin D replacement on hemoglobin	
						concentration in subjects with concurrent iron-deficiency	

- Meeting User Needs
  - Mash turnaway report data with article delivery service reports

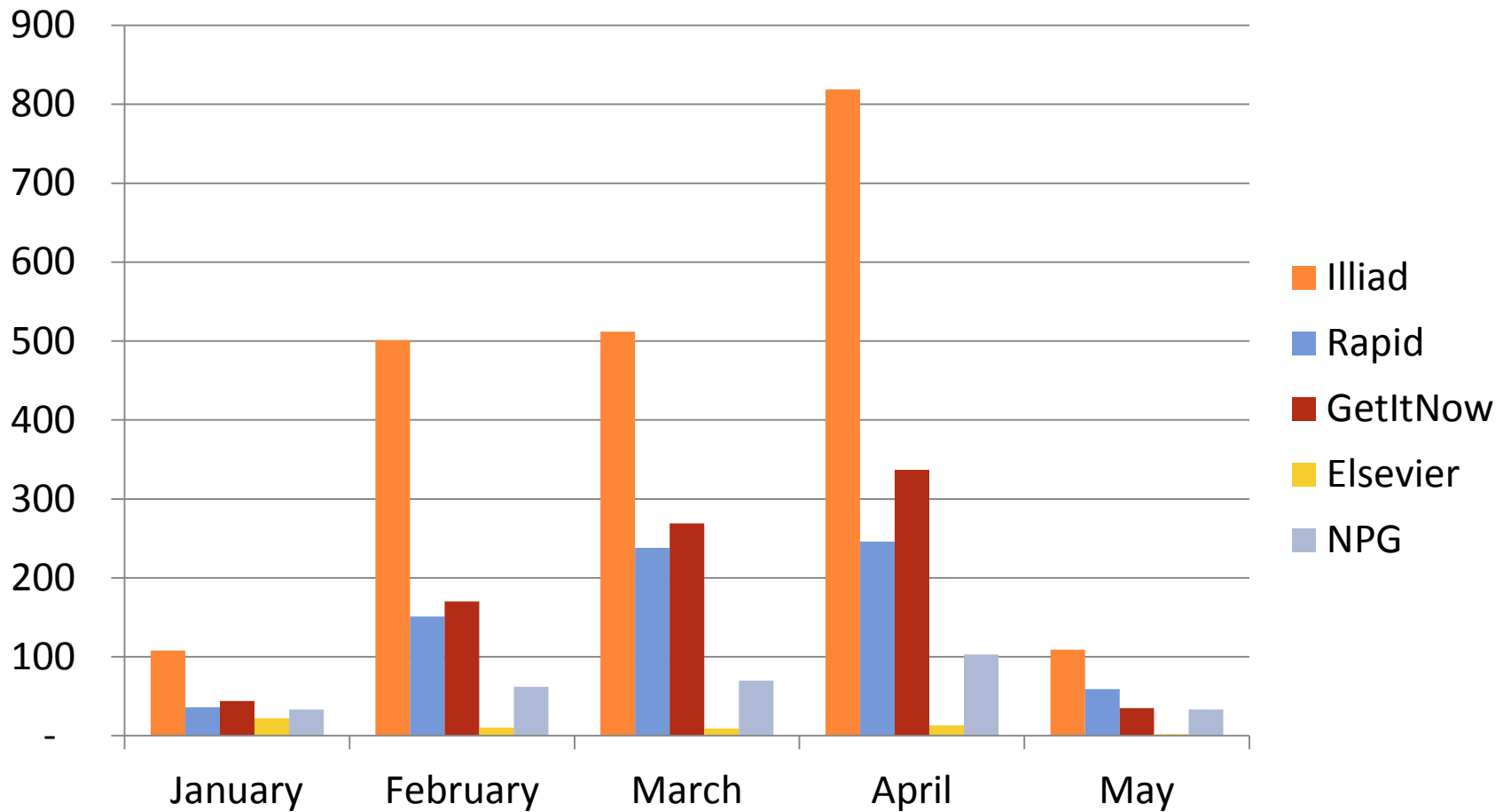
# Efficiency, GIN vs. Rapid

- Most apples to apples comparison
  - Unmediated
- Efficiency was measured by turnaround time, the difference between order and fulfillment
  - Also measured by time segments to determine time variability and user behavior:
    - 12am-8am
    - 8am-4pm
    - 4pm-12am



# Volume of Article Fulfillment by Service

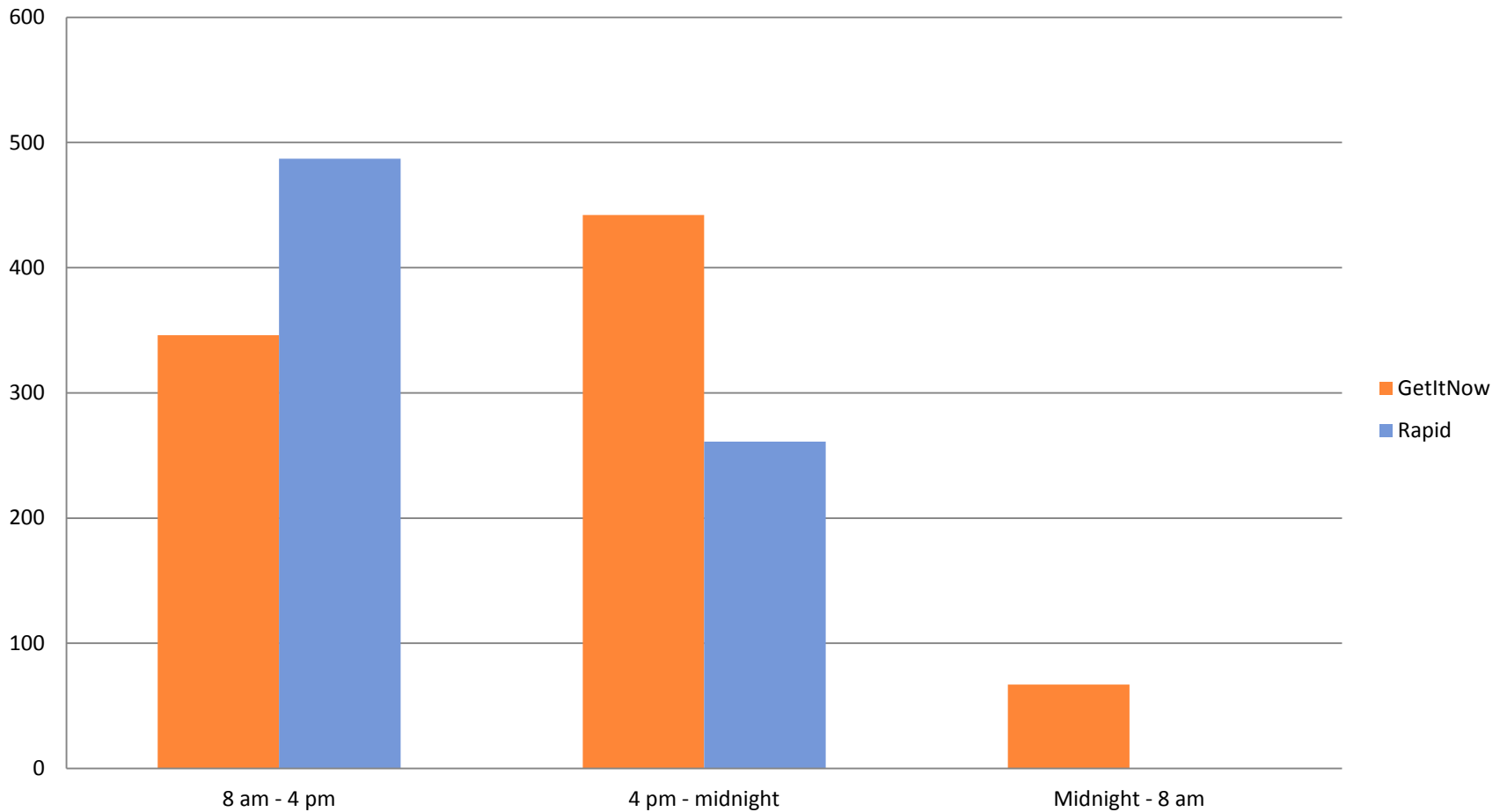
## Spring 2015





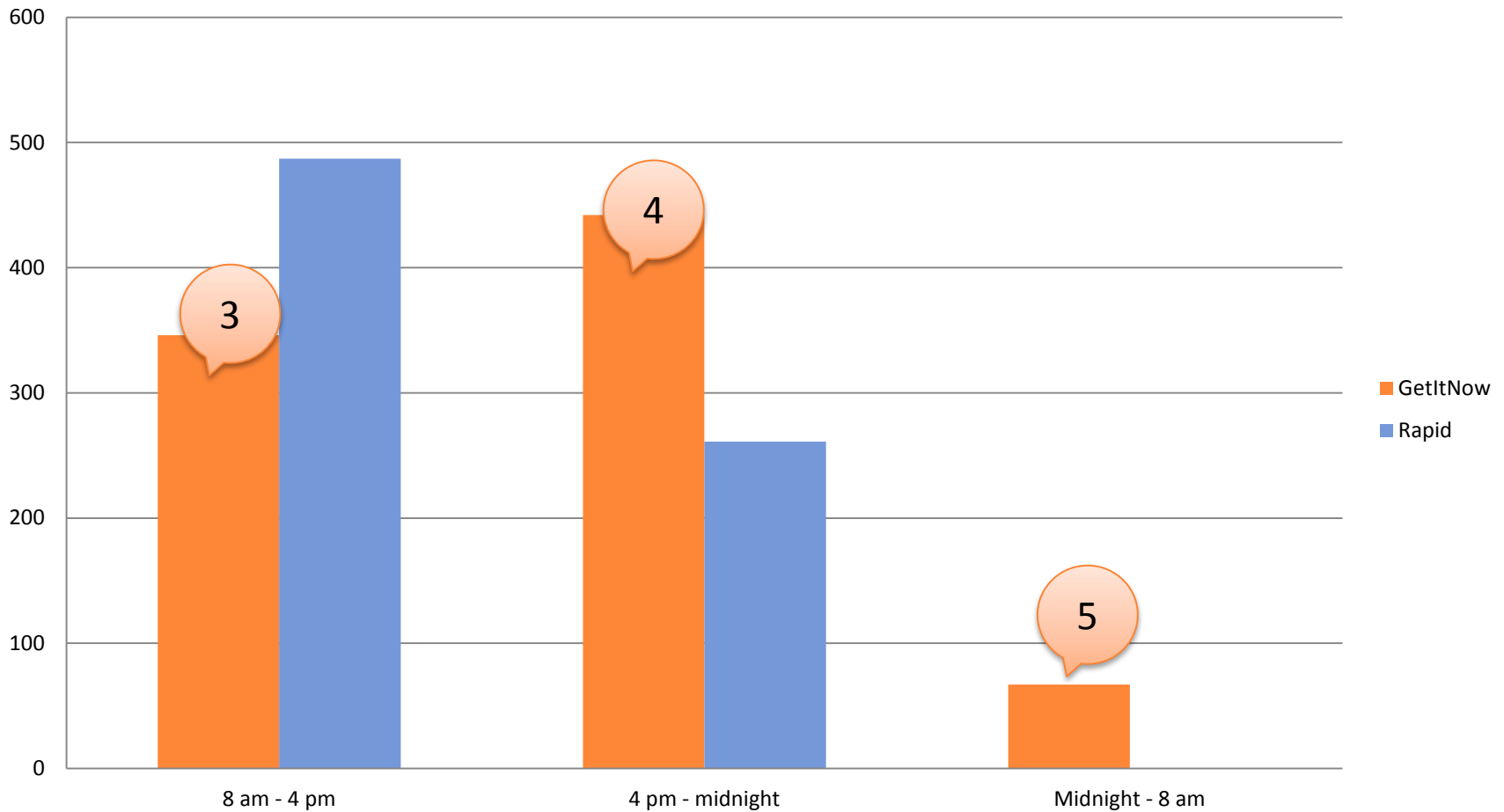
# Number of Requests by Time of Day

## April 2015



# Number of Requests by Time of Day

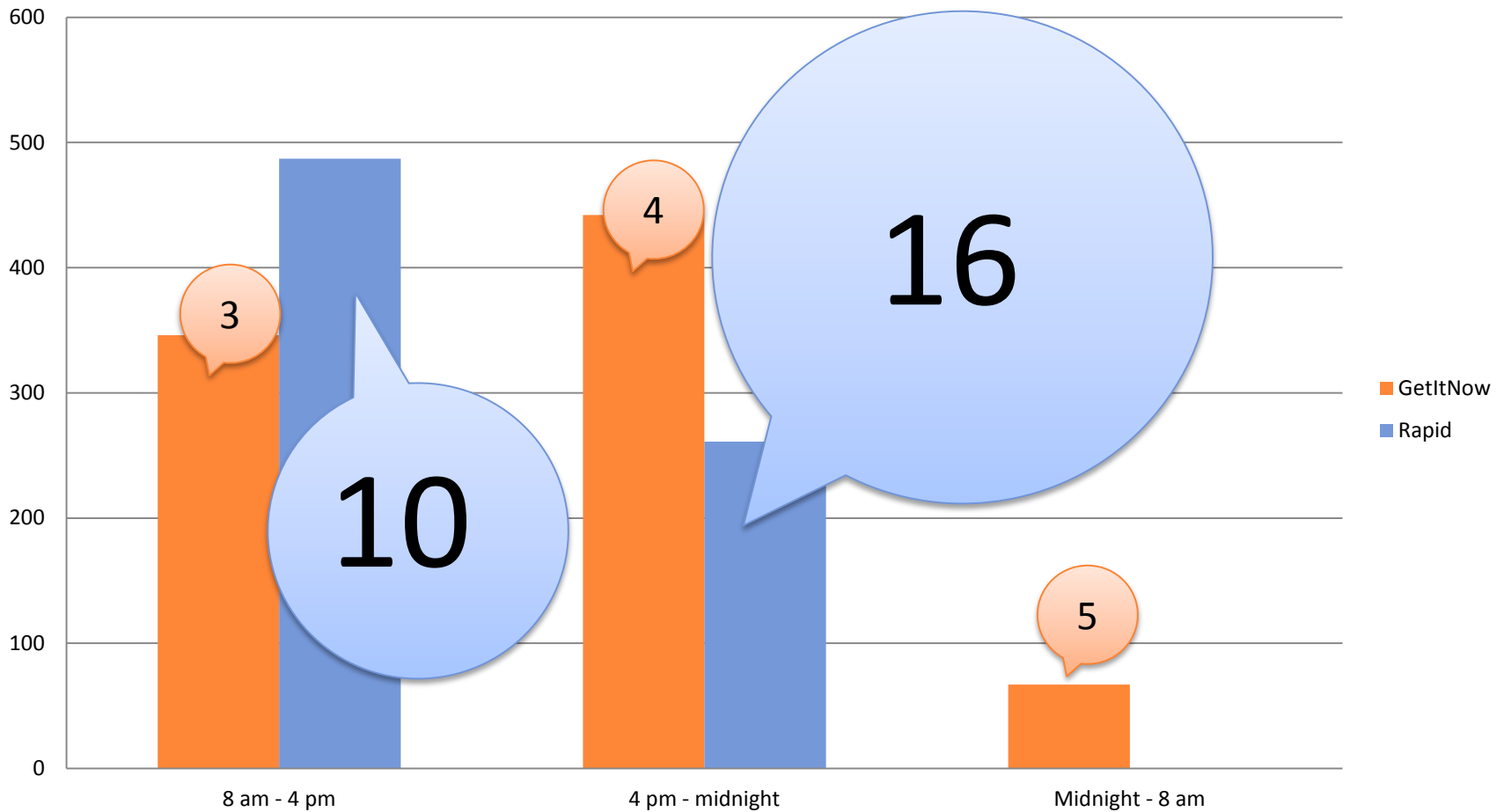
## April 2015



And Average Turnaround Time

# Number of Requests by Time of Day

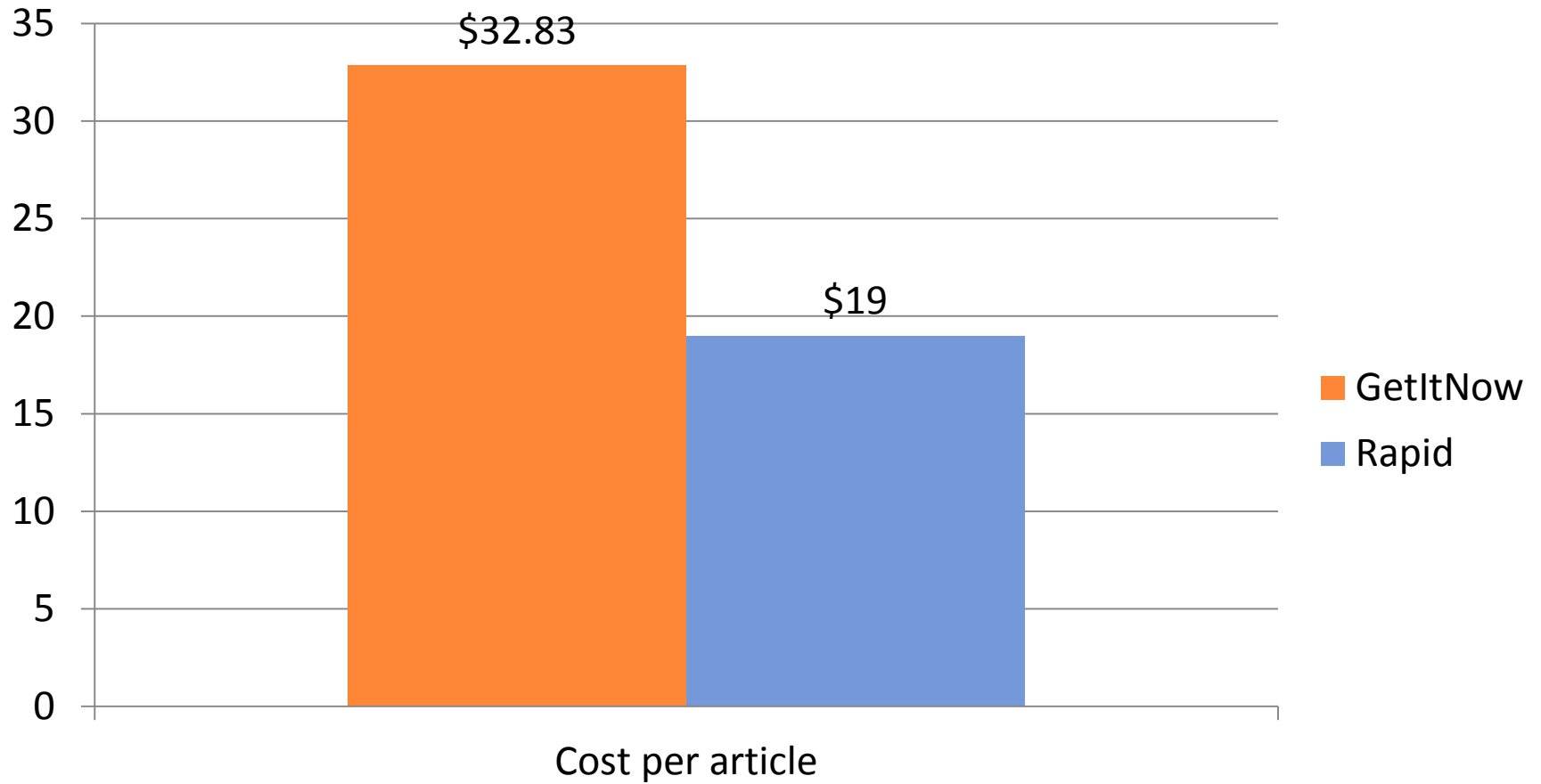
## April 2015



And Average Turnaround Time

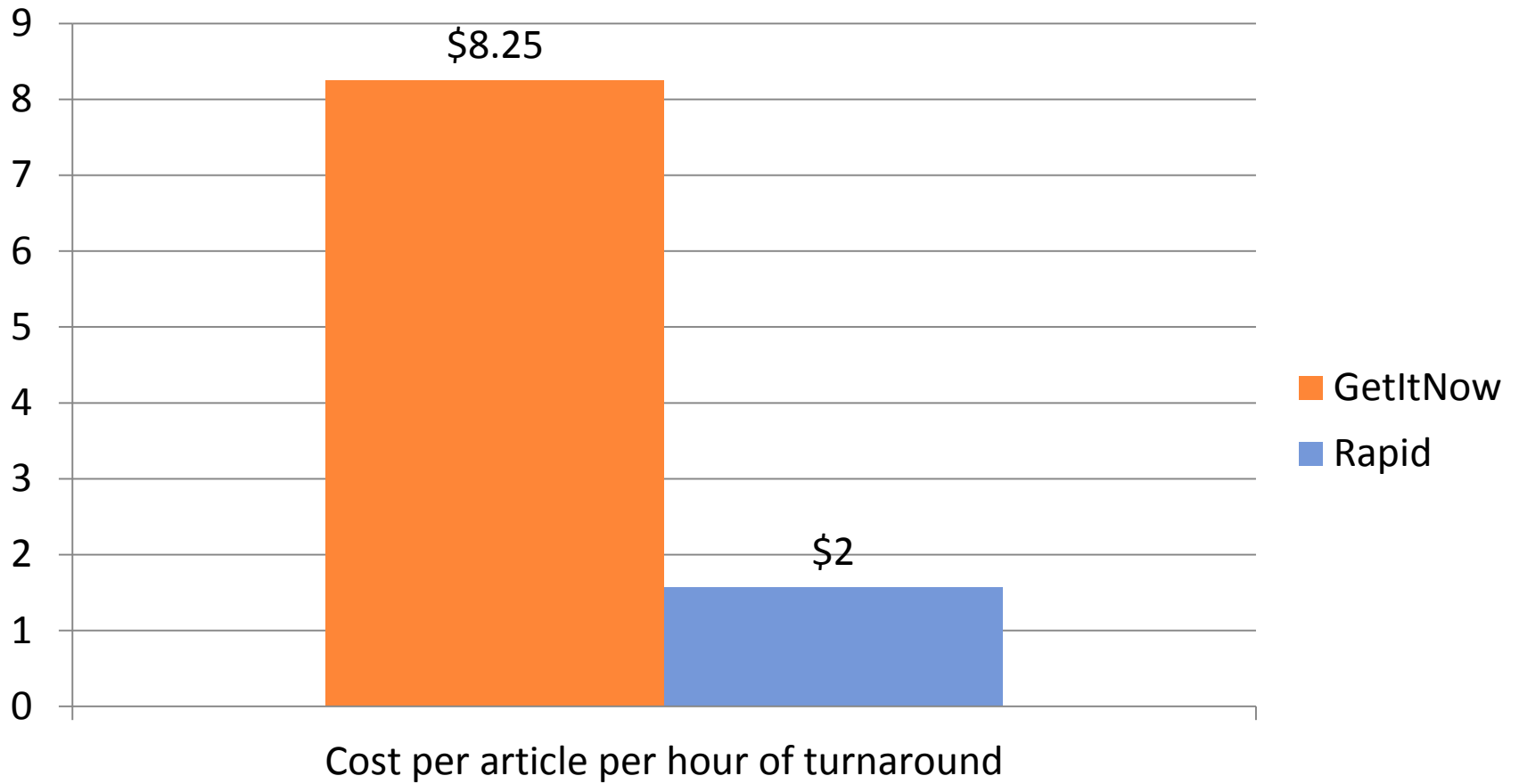
# Monetizing Efficiency

## January – May 2015



# Monetizing Efficiency

January – May 2015



# Qualifying Turnaways

- Working definition: A turnaway measures demand for unsubscribed content, generally from the publisher platform
- The COUNTER Journal Report 2 (CJR2) provides “access denied to full-text articles by month, journal and category”
  - Publishers present CJR2s to sell subscriptions and/or journal back-files
    - The pitch: “users are not getting what they need”
  - Libraries *should* examine CJR2s to determine whether demand is unmet by available library article delivery services

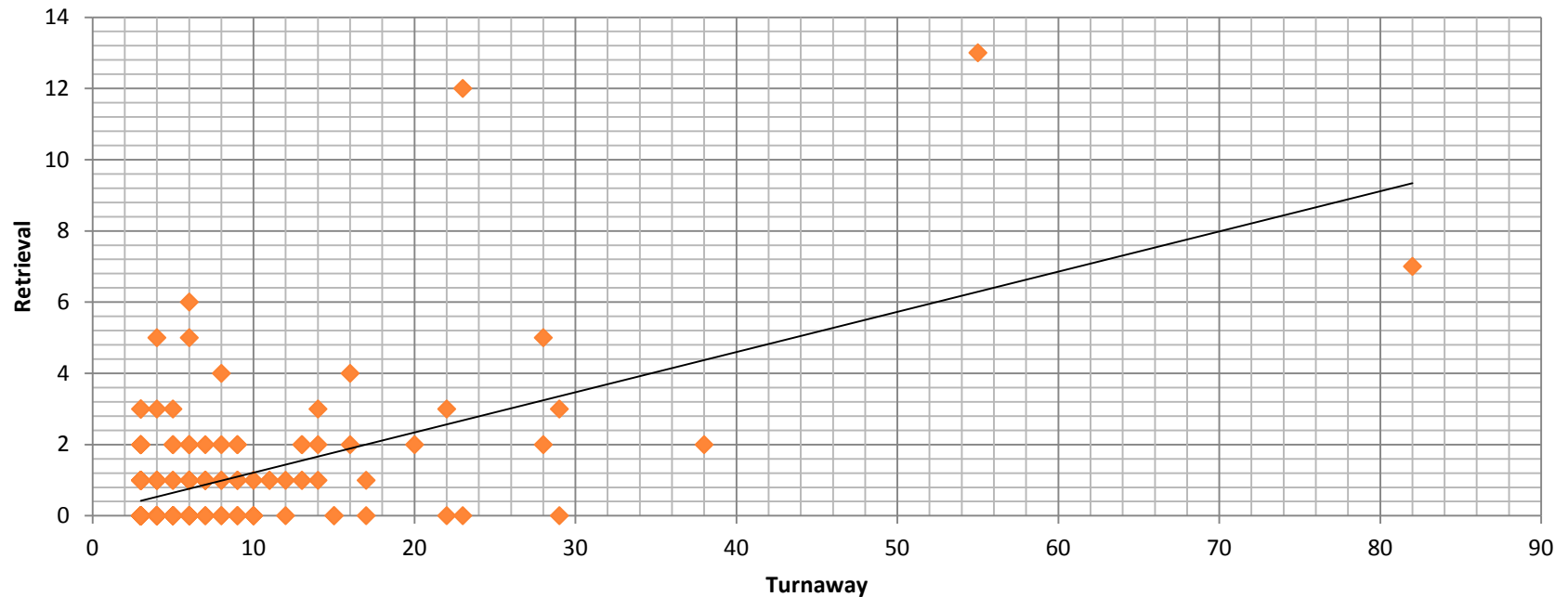


# Quantifying Turnaways

- The Experiment
  - Compare Elsevier CJR2s to GIN, ILLiad, and Rapid transaction reports.
- Challenge
  - Only two data points
    - Publication
    - Publication month
- Is there a correlation?

# Elsevier

## February through April 2015



# Conclusions

- Suspended GIN due to the relative efficiency of Rapid and the higher cost per hour per article cost of GIN. We are exploring GIN's mediated options.
- The correlation between turnaways and retrievals challenges the publishers' refrain that turnaways reflect unmet demand. Furthermore, the inability to mash up data at a more granular level, e.g., the article level, minimizes the value of turnaway reports.

# Questions to Ponder

- Is a 4 hour turnaround time equivalent to a 13 hour turnaround time in a student's opinion?
- What percentage of our spending should be on consumable articles rather than subscriptions?